

Appendix VIII

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Cigarette Paper Characteristics vs. TPM and Static Burning

After discussions with T. Budne an experimental design has been developed to study the effect of cigarette paper characteristics (chemical treatment and porosity) on the TPM delivery and static burning of cigarettes. Eight cigarette papers are to be used in this experiment (see attached table). Cigarettes will be made from each of these papers using Parliament filler, 25.0 mm circumference, and a 90 mm rod length. The target cigarette density will be the same as Parliament cigarettes. During cigarette manufacture, samples of the cigarette paper (approximately 30 ft.) will be taken just before, at the middle, and at the end of each run with a different paper. These samples will be used to establish the cigarette paper characteristics.

The cigarettes will be sampled and evaluated as follows:

1. After conditioning for 48 hours at 75°F and 60% R.H. the cigarettes will be weight selected in three groups to obtain approximately 500 cigarettes at each weight range. The weight ranges to be used are target 1.265 - 1.305 gms, 1.225 - 1.265 gms, and 1.305 - 1.345 gms.
2. Standard tests to be performed are shown in the table below:

	<u>Sample</u>	<u>Monitor</u>	<u>Length Smoked</u>
TPM	16 ports	4 ports	60 mm
Nicotine	16 ports	4 ports	60 mm
Static burning	40 cigts.	20 cigts.	40 mm
Dynamic burning	same as TPM	same as TPM	60 mm
% dilution	100 cigts.		
RTD	100 cigts. (same as dilution)		

All of these tests are to be performed on the weight selected cigarettes at the center weight range for each paper and at all weight ranges on one of the paper samples. Should differences due to weight occur on the one sample, then all samples will be run as indicated above.

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4. On one sample and at one weight range the cigarettes for TPM and nicotine are to be segregated into groups of four according to RTD. Examination of the data according to RTD (assuming the RTD of the cigarettes is not uniform within weight selected groups) will establish any relationship that may exist between TPM, nicotine, and dynamic burning, and RTD.
5. Percent dilution and RTD data will be used to establish any relationship between these variables and paper porosity. It will also aid in checking the quality of the glue lines on the Chico cigarettes.

/hj

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